

1 STATE OF ILLINOIS
2 ILLINOIS COMMERCE COMMISSION

3
4 REBUTTAL TESTIMONY ON REHEARING OF CHRISTOPHER J. BOYER
5 ON BEHALF OF AMERITECH ILLINOIS OFFICIAL FILE
6 DOCKET NO. 00-0393

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ILL. C. C. DOCKET NO. 00-0393
Ameritech Ill. 4.1
Witness
Date 7/19/01 Reporter C.J.O.

1 I. INTRODUCTION

2 Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

3 A. My name is Christopher J. Boyer. My business address is Three Bell Plaza, Room 721,
4 Dallas, Texas, 75202.

5 Q. ARE YOU THE SAME CHRISTOPHER BOYER WHO FILED DIRECT
6 TESTIMONY IN THIS CASE?

7 A. Yes.

8 II. PURPOSE OF TESTIMONY

9 Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?

10 A. The purpose of my rebuttal testimony is to reply to the rebuttal testimony of several CLEC
11 witnesses in this case, including the technical issues raised by Mr. Watson from Rhythms and
12 Mr. Gindlesberger from Covad.

13 Q. PLEASE SUMMARIZE YOUR TESTIMONY.

14 A. Yes. I will address the following areas in my testimony:

- 15 • The CLEC witnesses' incorrect claims that CLEC line card "collocation" is feasible and
16 would have no adverse capacity impacts on the planned Ameritech Illinois Project Pronto
17 DSL architecture. (Section III).

- 1 • The CLEC witnesses' proposed solutions to the capacity constraints on the Project Pronto
2 architecture, which are not solutions at all and do little to mitigate the capacity concerns I
3 outlined in my direct testimony. (Section IV).
- 4 • I rebut incorrect claims made by several CLEC witnesses that copper facilities are not
5 available and capable of being used by CLECs to self-provision their own form of xDSL
6 service outside of Project Pronto. (Section V).
- 7 • I rebut the incorrect CLEC claim that Ameritech Illinois is obligated to "unbundle"
8 Project Pronto because it allegedly is nothing more than an unbundled loop. (Section
9 VI).
- 10 • I rebut the CLECs' claims that Ameritech Illinois is obligated to unbundle packet
11 switching functionality based upon the four criteria as set forth by the FCC. (Section
12 VII).
- 13 • I rebut incorrect CLEC statements about the viability of SBC's proposed process to
14 evaluate the deployment of future features and functions over the Project Pronto
15 architecture. (Section VIII).
- 16 • I rebut CLEC claims that it is technically feasible to "unbundle" the Project Pronto
17 architecture. (Section IX).
- 18 • I address incorrect CLEC arguments in relation to the SBC Broadband Service and its
19 viability as a competitive alternative to the Order's current "collocation" and
20 "unbundling" requirements. (Section X).

1 **III. CLEC LINE CARD "COLLOCATION"**

2 **Q. SEVERAL OF THE CLEC WITNESSES HAVE ARGUED THAT IT IS**
3 **TECHNICALLY FEASIBLE TO "COLLOCATE" LINE CARDS IN AN**
4 **AMERITECH ILLINOIS NGDLC. DO YOU AGREE WITH THIS ASSESSMENT?**
5 **(GINDLESBERGER 4-7, WATSON 24-25)**

6 No. Ameritech Illinois has not disputed in the past that CLEC line card collocation is
7 technically possible. However, Ameritech Illinois has argued that simply because it is
8 ~~something~~ ^{sometimes} possible for a CLEC to place its own line card in ILEC's NGDLC equipment
9 does not make this a feasible alternative. Determinations of technical infeasibility require an
10 evaluation of the impact of a proposed requirement on the ILEC's ability to manage its
11 network.

12 As addressed in Direct Testimony of several of Ameritech Illinois witnesses, most notably
13 Mr. Keown and Mr. Hamilton, CLEC line card "collocation" calls into question Ameritech
14 Illinois' ability to manage its network. None of the CLEC witnesses provide any ^{proposal} ~~rationale~~
15 ^g ~~proposed~~ for mitigating the concerns regarding network capacity and/or process impacts
16 raised by Ameritech Illinois' witnesses.

17 **Q. COVAD WITNESS GINDLESBERGER PROPOSES A HIGH LEVEL PROCESS**
18 **UNDER WHICH SUCH CLEC LINE CARD "COLLOCATION" COULD OCCUR.**
19 **PLEASE COMMENT ON MR. GINDLESBERGER'S PROPOSAL.**
20 **(GINDLESBERGER 4-5)**

21 A. Mr. Gindlesberger's proposes that the CLECs would purchase the line cards and that
22 subsequently, following the transfer of ownership of these assets to Ameritech Illinois,
23 Ameritech Illinois would place them into remote terminals based upon demand forecasts
24 provided by the CLECs. There are two problems with this approach.

1 First, under this scenario Ameritech Illinois would be placing line cards into slots on behalf
2 of CLECs, reserving that capacity for that particular CLEC, based upon a marketing forecast.
3 As I addressed in my Direct Testimony there is a limited number of slots in Litespan 2000
4 RTs – thus any CLEC card placement would be using some of that capacity and could
5 potentially be stranding that capacity if no sale is made by the CLEC or if the CLEC does not
6 use all the parts on each card. Thus, if a CLEC did not meet its marketing forecast in any
7 given location that capacity would be stranded while the CLEC's line card still occupied a
8 slot.

9 Second, in terms of forecasts, SBC and the CLEC community have discussed this concept at
10 various times in the Project Pronto Industry collaborative. In discussing forecasts one
11 recurring theme from the CLEC community has been made adamantly clear – the CLECs
12 would only agree to non-binding forecasts. In other words, the CLECs would like for
13 Ameritech Illinois to plan its network in response to forecasts, but, CLECs do not want to be
14 bound to purchase from Ameritech Illinois any or all of the capacity they have forecasted.

15 It is easy to explain why Ameritech Illinois does not regard CLEC forecasts as a valid way to
16 plan its network or to administer CLEC line card collocation. If Ameritech Illinois took
17 these proposed forecasts at face value and upgraded its network to support either CLEC line
18 card “collocation” or increased the capacity in its network in order to support the other
19 services that CLECs would use line card “collocation” as a means to provide (such as
20 G.SHDSL), Ameritech Illinois would incur a large degree of capital expense in developing
21 this superior network architecture. However, if a CLEC did not fulfill its demand forecast,
22 Ameritech Illinois would be left holding the bag for its costs. The only manner in which
23 Ameritech Illinois could even hope to have cost recovery would be ^{to} have ~~either~~ some firm

1 commitment from a CLEC to purchase a significant demand of the services that the CLEC
2 wishes to provide and that led to the increased capacity. This would be essential to ensure
3 that the capacity is not left stranded. Alternatively, a CLEC could agree to compensate
4 Ameritech Illinois up-front for the upgrading of its network.

5 Third, the process proposed by Mr. Gindlesberger is insufficient in that it does not address
6 numerous other process-related issues that would have to be considered to make CLEC line
7 card "collocation" a viable option. These issues are addressed in more detail in the testimony
8 of witnesses Hamilton and Keown.

9 **Q. RHYTHMS WITNESS WATSON ALSO ARGUES THAT LINE CARD**
10 **COLLOCATION IS TECHNICALLY FEASIBLE BASED UPON INTERNAL SBC**
11 **DOCUMENTS THAT DISCUSS HOW IT MAY POTENTIALLY BE PROVIDED.**
12 **PLEASE COMMENT ON THIS STATEMENT. (WATSON 25)**

13 A. The existence of these documents-only illustrates that SBC considered the possibility of
14 CLEC line card "collocation" and came to a determination that such an arrangement was not
15 practical and/or feasible to implement in SBC's network. The fact that SBC contemplated an
16 arrangement on its own volition and determined that it was not workable does not make it
17 suddenly technically feasible. In any technology-driven business there are various
18 alternatives considered that eventually may or may not be implemented. Line card
19 "collocation" is no different than an other alternative that may be evaluated by SBC in the
20 context of managing its business.

21 **Q. DO YOU AGREE WITH THE CLEC WITNESSES WHO ARGUE THAT THERE**
22 **WOULD BE NO ADVERSE CAPACITY IMPACT OF CLEC LINE CARD**
23 **"COLLOCATION"?**

24 A. No. In my opinion there is a high probability that CLEC line card "collocation" would in
25 fact lead to stranded capacity. In any instance where a CLEC has placed a line card into a

1 slot within the NGDLC system and does not use all of the potential capacity provided by that
2 given slot there is in effect stranded capacity. For example, if the potential capacity of a
3 given slot is four end user customers, any event that creates a scenario under which less than
4 four end users can be provided service using that slot strands some potential capacity. This
5 scenario would occur if a CLEC were to place a line card into a slot and only provide service
6 to one end user -- when potentially that slot is capable of serving upwards of four potential
7 end users.

8 In contrast, under the current SBC proposal for ^{the} a Broadband Service, whether or not a CLEC
9 had any demand from a given RT site is irrelevant. This is because multiple CLECs can use
10 the multiple ports on a given card. Thus, under the Broadband Service offering, because the
11 capacity is allocated at a port level as compared to a slot/card level under the CLECs
12 proposal, Ameritech Illinois could ensure that all of the port capacity in any Litespan system
13 is available to all carriers. This arrangement also ensures that the use of the Project Pronto
14 architecture is available to the greatest number of end users. This would not be the case if
15 given line cards and slots were dedicated to any one carrier, which is precisely what creates
16 the potential for stranded capacity.

17 IV. CAPACITY IMPACTS

18 **Q. SEVERAL CLEC WITNESSES CLAIM THAT AMERITECH ILLINOIS'**
19 **CAPACITY CONCERNS ARE IN REALITY AN ATTEMPT TO DICTATE TO**
20 **CLECS WHAT SERVICES CLECS CAN PROVIDE OVER THE PRONTO**
21 **ARCHITECTURE. THE CLECS ALSO CLAIM THAT THESE CAPACITY**
22 **CONSTRAINTS ARE NO DIFFERENT THAN THE SITUATION THAT EXISTS**
23 **WITH OTHER TELECOMMUNICATIONS SERVICES PROVIDED TODAY. DO**
24 **AGREE WITH THIS ASSESSMENT?**

25 A. No. First, as I have outlined in detail in my Direct Testimony, the capacity concerns raised
26 by Ameritech Illinois in this context are very much a reality. The FCC even recognized this

1 fact in the Project Pronto waiver order:

2 "We recognize that making available the full features, functions, and capabilities of the
3 equipment may require SBC to resolve unforeseen technical and operational issues.
4 Moreover, we understand that there may be capacity issues, in that potentially
5 competitors may seek features that would use much of the available bandwidth of a
6 particular feeder line."¹
7

8 The capacity concerns raised by Ameritech Illinois are an attempt to ensure that the mass
9 market (consumers and small businesses in the context of Project Pronto) is provided high-
10 speed Internet access capability with the necessary quality of service that this market
11 demands. The capacity impacts created by the CLECs' proposals would create the risk of
12 less availability and a lower quality of service, and thus are contrary to this goal.

13 Second, as I address in detail below, it is a very difficult and potentially costly action to
14 upgrade the bandwidth and capacity of the overall Project Pronto system. The CLECs'
15 claims are mere generalizations that telecommunications networks can typically be
16 expanded. As a general matter this is true. However, the CLECs simply ignore the
17 constraints of the environment we are discussing in this particular context — that being
18 primarily a new NGDLC architecture in the outside loop plant.

19 It is irrelevant whether telecommunications networks on a general level can be expanded.
20 The relevant issue here is whether the specific technology deployed with Project Pronto
21 (including the Litespan 2000 NGDLC and the OCD) can be expanded upon. The CLEC
22 witnesses offer no specific explanation as to how this could be done. Instead, they merely
23 offer incorrect statements about how Wave Division Multiplexing ("WDM") allegedly could
24 increase the capacity of the fiber system and the general statement that capacity could be

1 FCC Project Pronto Waiver Order at 44.

1 increased via either the replacement and/or upgrading of the electronics within the system.

2 The CLECs completely fail to acknowledge the high degree of difficulty and cost that such a
3 task would incur. The CLECs offer no solution to the problems of how this expansion of
4 capacity could be readily accomplished. I will address several of the CLECs' statements in
5 the following portions of my testimony.

6 **Q. RHYTHMS WITNESS WATSON DISAGREES WITH AMERITECH ILLINOIS'**
7 **CAPACITY CONCERNS, STATING THAT HE DOES NOT BELIEVE THAT A**
8 **FIBER SYSTEM IS CAPACITY CONSTRAINED. DO YOU AGREE WITH MR.**
9 **WATSON'S ARGUMENT? (WATSON 11-12)**

10 A. No. Mr. Watson basically states that fiber-based systems provide essentially unlimited
11 bandwidth, and he therefore seems to conclude that the Project Pronto architecture (the
12 NGDLC, OCD, and associated bandwidth) is not capacity constrained because Ameritech
13 Illinois allegedly could choose to enhance this capacity via several different alternatives.

14 I would agree with Mr. Watson that the fiber *cabling* itself could provide for the transmission
15 of virtually unlimited amounts of bandwidth. However, to apply Mr. Watson's logic would
16 be to state that because the fiber itself is not bandwidth constrained then the Litespan 2000
17 NGDLC system and the OCD used with Project Pronto is not bandwidth constrained. This
18 ignores the fact that actual bandwidth provided over a fiber optic system is not simply a
19 function of the fiber cabling itself, but is a function of the entire system, which includes, in
20 addition to fiber cabling, the electronics at either end of the fiber optic facility. In the case of
21 Project Pronto, the bandwidth capable over the entire NGDLC (e.g. Litespan 2000) system is
22 a factor of not only the fiber cabling but also of the bandwidth capable of being derived from
23 the Litespan 2000 NGDLC equipment and the bandwidth capable of being routed through the
24 OCD.

1 Simply put, the fiber must be "lit" by a piece of electronics (in the case of Pronto the
2 Litespan 2000 NGDLC system) to provide for transmission over the fiber optic cabling. The
3 transmission speeds that are capable over this fiber then become a factor of how much
4 bandwidth can be derived from the associated electronics.

5 This is precisely the point of my Direct Testimony. The Litespan 2000 system provides for
6 only an OC-3c worth of bandwidth for the data traffic. Furthermore, the OCD is a port
7 limited device, which is another constraint that must be considered. The bandwidth available
8 to Ameritech Illinois between these two points over the fiber cabling is subject to the
9 constraints of these devices. These are capacity limitations that Ameritech-Illinois must
10 evaluate ^{prior to} the deployment of new features and functions on its Project Pronto network. The
11 capacity constraints I address in my direct testimony are a factor of these limitations.

12 As Mr. Watson suggests, the only manner in which to expand this capacity is to either
13 augment the specific architecture to increase the bandwidth or to change out the electronics at
14 each end of the system.

15 **Q. SEVERAL CLEC WITNESSES ALSO CLAIM THAT FIBER CAPACITY AT AN RT**
16 **SITE COULD BE EXPANDED UPON TO AVOID RT EXHAUST SCENARIOS BY**
17 **DEPLOYING WAVE DIVISION MULTIPLEXING AND/OR THE LITESPAN 2012**
18 **PRODUCT. DO YOU AGREE WITH THESE CLAIMS? (WATSON 11-12,**
19 **GINDLESBERGER 16)**

20 A. No. From a technical perspective, Wave Division Multiplexing ("WDM") or Dense Wave
21 Division Multiplexing ("DWDM") is a method of increasing the capacity of an optical fiber
22 by transmitting multiple signals as different wavelengths over the same fiber. However,
23 even if this capability were deployed, WDM does not necessarily increase the bandwidth
24 capable from the Litespan 2000 system. The bandwidth for the various signals transmitted

1 via the use of WDM or DWDM technology remains a factor of the electronics at either end
2 of the fiber system.

3 **Q. PLEASE EXPLAIN.**

4 A. The advantage of WDM is that multiple signals can be placed over one fiber strand, lessening
5 the requirement to deploy additional fiber. Thus, theoretically WDM could increase the
6 capacity of a given fiber strand by placing what before were multiple signals, using their own
7 separate fiber strand, onto one fiber strand. However, the bandwidth provided over that fiber
8 strand remains a factor of the electronics providing the multiple wavelengths that are routed
9 over that specific fiber strand. For example, with the Litespan 2000 system, the bandwidth
10 provided for the data traffic is a factor of the ATM Bank Control Unit (ABCU). The ABCU
11 is a common card that is placed into each data capable (e.g., DSL) channel bank within the
12 system. This common card serves to take the data traffic output from each of the ADLU
13 cards (the line cards serving each individual customer) and subsequently packetizes and
14 routes the data traffic ~~over an~~ OC-3c back to the central office OCD. At a high level, the
15 ABCU performs the ATM multiplexing function within the Litespan system and serves to
16 provide the means of transport from the NGDLC site to the central office. Thus, the ABCU
17 card within the Litespan system is the determining factor as to what level of transport can be
18 provided from the NGDLC back towards to the central office.

19 At this time, however, the ABCU card at this time is only capable of outputting an OC-3c
20 signal. WDM or DWDM would do nothing to change this circumstance. The only manner
21 in which to increase this signal would be for Alcatel to develop a new form of ABCU card
22 that offers a higher level form of transport, such as an OC-12. With the Litespan 2000
23 equipment, there is an ABCU card placed in each channel bank, each capable of providing an

1 OC-3c's worth of transport. Thus, at best, the electronics within the Litespan 2000 system
2 can only provide an OC-3c's worth of bandwidth from each data channel bank placed within
3 the system. In a typical configuration, there will be three data-capable channel banks within
4 a given Litespan-equipped RT site. Thus, in this instance, the most amount of transport that
5 can technically be provided, lacking an enhancement to the ABCU card, is three OC-3cs (one
6 from each channel bank).

7 In this context, the sole benefit of WDM technology would be that Ameritech Illinois could
8 provide a dedicated OC-3c to each channel bank over a single fiber strand. To explain, under
9 the planned Project Pronto deployment the channel banks within the RT site are "daisy
10 chained," meaning that instead of using one dedicated OC-3c to each channel bank (with a
11 dedicated fiber strand to each channel bank), the channel banks are chained to one common
12 OC-3c. There are three main reasons why the network is being deployed in this manner.
13 The first is the obvious goal of conserving physical fiber capacity. The second is to
14 minimize the capacity impacts on the OCD at the other end of the system. The third is due to
15 the fact that the Project Pronto deployment is focused primarily upon high-speed residential
16 Internet access. SBC's traffic engineers have estimated that a single OC-3c provides more
17 than sufficient bandwidth to serve a fully loaded Litespan system for the purposes of
18 residential Internet access (via the provision of an unspecified bit rate ATM class of service).
19 Therefore there is no need, unless additional services such as high bandwidth CBR or
20 G.SHDSL were deployed, to provide a dedicated OC-3c to each channel bank.

21 *USING WDM AND*
22 **Q. WOULD ASSIGNING A SEPARATE OC-3 TO EACH CHANNEL BANK REDUCE**
23 **THE CAPACITY EXHAUST PROBLEMS YOU DISCUSSED IN YOUR DIRECT**
24 **TESTMONY?**

A. No. The only benefit of WDM and providing a separate OC-3c from each channel bank over

1 one single fiber strand is that Ameritech Illinois would conserve fiber. Conserving fiber,
2 however, would do nothing to alleviate the adverse capacity impacts on the OCD that would
3 arise from "unbundling" PVPs and PVCs. In the scenario I outlined above, Ameritech
4 Illinois would still have three OC-3cs inbound from the RT site to the OCD, requiring three
5 ports on the OCD in order to serve these RT sites. I will discuss this adverse capacity impact
6 on the OCD in addressing this specific scenario proposed by Rhythms' witness Watson later
7 in my testimony.

8 **Q. WOULD DEPLOYMENT OF A LITESPAN 2012 SYSTEM AVOID THESE**
9 **ADVERSE CAPACITY IMPACTS?**

10 A. No. The Litespan 2012 would provide essentially the same benefit, or lack of benefit, as
11 deploying WDM. The Litespan 2012 basically multiplexes the voice and data signals into a
12 SONET-based OC-12 for transport back to the central office. However, this device provides
13 no more benefit than the WDM scenario I outlined above. This is because the Litespan 2012
14 basically takes the potentially three OC-3cs' output from each individual data-capable
15 channel bank and the one OC-3 that is used to serve the multiple voice channel banks, and
16 simply routes all four of these facilities across a SONET-based OC-12. This means that
17 technically there are still four separate signals -- the four OC-3s -- but they are being transport
18 over a higher level OC-12 facility as individual channels within that facility.

19 The end result in terms of bandwidth is exactly the same as with WDM. That is, multiple
20 OC-3cs from multiple data channel banks would be provided over one fiber strand as
21 separate channels within an OC-12 provisioned over this fiber strand. However, even in this
22 instance, the OC-12 would have to be de-multiplexed via SONET equipment in the central
23 office and at that point each individual data OC-3c signal routed to an individual port on the

1 OCD. Thus, the end result is the same that WDM would provide and does nothing to alter
2 the adverse capacity impacts on the OCD.

3 Furthermore, the fact the Litespan 2012 is available is insignificant. SBC has not deployed
4 and is not planning to deploy the Litespan 2012 on a large-scale basis as a part of Project
5 Pronto.

6 **Q. RHYTHMS WITNESS WATSON SUGGESTS THAT BREAKING THE CHAIN AND**
7 **DEDICATING A FACILITY TO EACH CHANNEL BANK IS A VIABLE**
8 **ALTERNATIVE. DO YOU AGREE? (WATSON 11-12)**

9 A. No. Mr. Watson proposes that these channel banks could be unchained to provide a separate
10 OC-3c to each channel bank. Technically this is possible, as I stated above. However, even
11 if WDM were deployed in this circumstance, it would still require three separate ports on the
12 OCD, one for each incoming OC-3c from each channel bank, as opposed to the single port on
13 the OCD when the channel banks are chained to a single OC-3c.

14 Allowing each RT to take up 3 ports on the OCD, as "unchaining" would require, would lead
15 to the premature exhaust of Ameritech Illinois' planned OCDs. As I have pointed out in my
16 Direct Testimony, the OCD is a port limited device. With the Cisco 6400 ATM switch (the
17 OCD planned for deployment in Illinois) there are 16 slots available for card placement. The
18 OC-3c card is a two port card, meaning the Cisco 6400 is limited to a maximum of 32
19 possible OC-3c ports. As I have stated, there are typically three channel banks deployed in
20 each RT site and approximately 16-24 RTs subtending each central office. Therefore, if we
21 consider the least impacting scenario of 16 RTs per wire center, under the "unchaining"
22 proposal (one OC-3c per channel bank, or three OC-3cs total inbound from each RT) there
23 would be a total of 48 inbound OC-3cs. This number is already greater than the maximum

1 capacity of the OCD and thus would require Ameritech Illinois to deploy an additional OCD
2 in each end office. This is one of the reasons why SBC has chosen to daisy chain the channel
3 banks within each RT site. By doing so, SBC can spread one OC-3c across all three channel
4 banks and lessen the port capacity impact on the OCD.

5 **Q. RHYTHMS' WITNESS WATSON POINTS TO DOCUMENTS THAT STATE THAT**
6 **SBC HAD ALREADY CONTEMPLATED A MULTIPLE OCD SERVING**
7 **ENVIRONMENT IN THE CENTRAL OFFICE. WHAT IS THE SIGNIFICANCE OF**
8 **THIS CLAIM IN RELATION TO YOUR ANALYSIS ABOVE?**

9 A. Mr. Watson's point seems to be that because SBC's internal engineering guidelines illustrate
10 the possibility of placing multiple OCDs in a serving wire center it must be advisable to do—
11 so. The reason why SBC's engineering guidelines contemplate the scenario of multiple
12 OCDs in a given wire center is that in some instances there will be situations in which there
13 will be more than the 16-24 RTs served out of a given central office. In situations where
14 there is an inordinant number of RTs served out of a given wire center, it may necessitate the
15 placement of more than one OCD, thus SBC has correctly planned for this circumstance.
16 However, Mr. Watson's logic seems to be that because in some rare instances this could
17 occur and SBC has in fact planned for such instances, it somehow is now advisable to deploy
18 multiple OCDs in every wire center as part of his proposal to redesign the Project Pronto
19 architecture with a dedicated OC-3c to each channel bank.

20 **Q. DOES ALCATEL OFFER WDM IN CONJUNCTION WITH THE LITESPAN 2000**
21 **AND WOULD THIS FORM OF WDM PROVIDE ANY PRACTICAL BENEFIT IN**
22 **TERMS OF INCREASING CAPACITY IN RELATION TO THE CLEC**
23 **PROPOSALS?**

24 A. WDM technology is available from Alcatel today over the Litespan 2000 system. However,
25 this would require Ameritech Illinois to deploy additional equipment at each RT site to
26 support WDM. Furthermore, the Alcatel version of WDM only provides for two

1 wavelengths – one being the 1550 nm wavelength which is used for the TDM (e.g. POTS)
2 OC-3c and the other being the 1310 nm wavelength which would be used for ATM (e.g.
3 DSL) OC-3c. The end result of this arrangement is that one voice OC-3 and one data OC-3c
4 from each RT site could be placed on the same fiber strand, the POTS using the 1550 nm
5 wavelength and the data using the 1310 nm wavelength.

6 Thus, the one potential benefit of WDM would not be achieved. Ameritech Illinois still
7 could not provide multiple data OC-3cs from multiple data capable channel banks over one
8 fiber strand. This is because the Alcatel WDM functionality only provides for a 2:1 split –
9 meaning one ATM OC-3c and one TDM OC-3. In other words, Ameritech Illinois would
10 still have to deploy a separate fiber strand to each channel bank. As a result, the alleged
11 benefit of deploying this particular WDM option would be negligible in that the only benefit
12 would be a reduction from two fiber strands (one for the voice OC-3 and another for the data
13 OC-3c) to one. Furthermore, this again leads to a potential conservation of fiber but not to an
14 increase in the available bandwidth of the system itself.

15 The only remaining option to deploy WDM would be to place a separate piece of equipment,
16 apart from the Litespan, to provide the WDM functionality. This arrangement would again
17 lead to additional costs for Ameritech Illinois and does not exist in Ameritech Illinois'
18 previously planned Project Pronto deployment. Furthermore, in an RT environment, just as
19 the CLECs have argued that there is limited space for collocation of their own equipment,
20 there is also limited space for the placement of additional stand-alone ILEC owned
21 equipment to enable this functionality.

22 **Q. IN ADDITION TO WDM TECHNOLOGY, MR. WATSON CLAIMS THAT**
23 **INCREASES IN THE AVAILABLE BANDWIDTH COULD BE ACHIEVED BY**

1 **INCREASING THE TRANSMISSION RATES OF THE ELECTRONICS ON BOTH**
2 **ENDS OF THE FIBER SYSTEM. DO YOU AGREE WITH THIS STATEMENT?**
3 **(WATSON 11)**

4 A. I agree with Mr. Watson that one solution to the bandwidth constraints of the Litespan 2000
5 system would be to upgrade the electronics at either end. However, in the case of the Project
6 Pronto architecture this would not be a simple proposition as Mr. Watson suggests. As I
7 mentioned previously, the entire system includes both the NGDLC equipment (the Litespan
8 2000) and the OCD in the central office. Thus, to increase the capacity of the electronics at
9 each end of this fiber strand, Ameritech Illinois would have to enhance both the electronics
10 for the NGDLC equipment within the RT (the Litespan 2000) and upgrade the OCD port
11 serving that particular RT site.²

12 As I have explained, the bandwidth capable from the Litespan 2000 system is a factor of the —
13 ABCU card. At this time the ABCU card is limited to an OC-3c mode of transport for data
14 traffic from the RT site to the OCD. In order to increase this capability, Ameritech Illinois
15 would have to place a different form of ABCU card in a given shelf in the Litespan system
16 capable of offering higher level transport, such as an OC-12. No such card exists today and,
17 to my knowledge, Alcatel has no plans to increase the capability of the ABCU card to
18 support more than an OC-3c.

19 Lacking this alternative, the only remaining option would be to either replace the entire
20 Litespan 2000 system with another device that is capable of providing higher level transport
21 or to deploy some form of stand-alone equipment capable of multiplexing the OC-3cs output
22 from the various data channel banks to a higher level facility. However, this would be a —

2 As I noted in my direct testimony, today all of the RT sites are served via OC-3cs. If the NGDLC equipment were upgraded to, for example, an OC-12, Ameritech Illinois would have to provide an OC-12 port on the OCD in order to service that particular RT site.

1 complex and costly task, as the output of the ABCU card is an ATM-based output.
2 Therefore, a traditional SONET-based add/drop multiplexer could not be used for this
3 purpose. Because the data traffic output from the ABCU is packetized, the only way to
4 aggregate the traffic to a higher level facility would be to place some form of ATM
5 aggregator, comparable to the OCD used in the central office. Given the scope of the Project
6 Pronto deployment, this is simply not a viable alternative. Furthermore, I am not aware of
7 any device that could be placed into a hardened cabinet type of environment that would
8 provide this capability adjunct to a Litespan 2000 system. As I stated above, the same space
9 limitations raised by the CLECs in regard to the collocation of their own DSLAM also would
10 be encountered by SBC in any attempt to place additional equipment within in an RT site.

11 Furthermore, even if the Litespan system were augmented or replaced with another system
12 to provide, for example, an OC-12 or higher form of transport, the corresponding port on the
13 OCD would also have to be upgraded to an OC-12. This result would impact the ability of
14 the OCD to continue to serve all of the RTs from a given wire center. As I have explained,
15 the Cisco 6400 planned for use in Illinois is limited to 16 available slots and the OC-3c card
16 placed is a two port card, meaning that there would be a maximum capacity of 32 ports
17 available for incoming OC-3cs from the various RT sites. As I mention, there is typically
18 between 16-24 RTs (and thus 16-24 inbound OC-3cs) to each OCD.

19 Therefore, in the least impacting scenario there would be at a minimum of 16 inbound OC-
20 3cs – which takes up at least 50% of the available capacity in the OCD. Now consider a
21 scenario of each of these OC-3cs being upgraded to an OC-12 (assuming the electronics on
22 the Litespan 2000 system were upgraded or if another piece of equipment were deployed).
23 The Cisco OCD can support OC-12s. However, the OC-12 card is a one port card. Thus, the

1 maximum capacity of the OCD is at the most 16 OC-12s. Therefore, if each RT site were
2 enhanced to provide an OC-12's worth of capacity inbound to a central office, the OCD
3 would be exhausted even in the least impacting scenario of 16 RT sites. Therefore, this
4 would require the placement of a second OCD in the wire center.

5 **Q. SEVERAL CLEC WITNESSES CLAIM THAT AMERITECH ILLINOIS WOULD**
6 **BE COMPENSATED FOR THE PLACEMENT OF THIS ADDITIONAL CAPACITY**
7 **VIA TELRIC BASED PRICES. DO YOU AGREE WITH THIS ASSESSMENT?**

8 A. While I am not a pricing expert, I do not agree. Rhythms and the other CLECs in this case
9 are proposing scenarios that would mandate that Ameritech Illinois spend the capital to be
10 ready to meet their demands in advance of the CLEC placing any orders or making any
11 binding commitment to purchase what they have asked for here. Thus, if the CLECs do not
12 place orders for the Pronto-DSL "UNEs," Ameritech Illinois still would have expended the
13 capital to build a CLEC-driven superior network but would be unable to recover its costs of
14 doing so.

15 **V. AVAILABILITY OF COPPER FACILITIES AND SELF-PROVISIONING**

16 **Q. THE CLEC WITNESSES CLAIM THAT THERE ARE NO COPPER FACILITIES**
17 **AVAILABLE TO CLECS THAT CAN SUPPORT DSL SERVICES WHERE NGDLC**
18 **IS DEPLOYED. IS THIS A CORRECT STATEMENT?**

19 A. No. The CLECs appear to be basing this argument upon the fact that Project Pronto is
20 generally being deployed where customers do not have access to DSL due to distance
21 limitations.

22 This argument, however, ignores the fact that copper facilities can in fact be used to
23 provision xDSL service even where distance limitations do exist. CLECs have the capability
24 today to place their own DSLAMs in the loop portion of the network which would enable

1 them to use the copper portions of the existing loop plant to provide xDSL service to end
2 users.

3 The CLEC argument in this area is not a technical argument that copper facilities are not
4 capable or available, but rather an economic argument that CLECs do not have the financial
5 means to deploy their own network. Simply because CLECs do not view this as a viable
6 alternative has no bearing as to whether or not these facilities are capable of supporting
7 xDSL service. Furthermore, SBC made various commitments in the Project Pronto Waiver
8 Order to the FCC—in response to various filings by the CLEC community—to offer
9 arrangements such as the Engineering Controlled Splice (“ECS”) to facilitate exactly this
10 form of access.

11 **Q. DESPITE THE CLEC CLAIMS IN THIS CASE, HAS THE CLEC COMMUNITY IN**
12 **THE PAST ARGUED THAT COPPER LOOPS WERE A VIABLE ALTERNATIVE**
13 **TO DLC DERIVED LOOPS SUCH AS THOSE OFFERED WITH PROJECT**
14 **PRONTO?**

15 A. Yes. The DSL Access Telecommunications Alliance (“DATA”), of which several CLECs in
16 this case are members, stated that DATA’s support of SBC’s waiver request to the FCC in
17 relation to the ownership of the Project Pronto equipment would be conditioned on the FCC,
18 among other things, requiring SBC to provide enforceable assurances to “maintain facilities-
19 based competition for subscribers by a) continuing to invest in, maintain, and support, the
20 provision of advanced services over all-copper loop infrastructure.”³

21 Given this filing and its support for an all-copper loop as a DSL alternative to Project Pronto
22 – and the fact the FCC’s Project Pronto Waiver Order imposed the exact kind of condition
23 the CLECs wanted – it is interesting that the same CLECs now are claiming that the same

³ DATA Reply Comments on ASD File 99-49, Docket 98-141, at 32.

1 copper facilities that they formerly demanded be maintained by SBC are now, they claim,
2 insufficient to offer their form of xDSL service.

3 **Q. SEVERAL OTHER CLEC WITNESSES CLAIM THAT ONE OF THE REASONS**
4 **WHY CLEC PLACEMENT OF THEIR OWN EQUIPMENT IN RT SITES**
5 **ALLEGEDLY IS NOT VIABLE IS THE LACK OF AVAILABLE COLLOCATION**
6 **SPACE AT RT LOCATIONS. PLEASE RESPOND.**

7 A. SBC has made various commitments in the FCC Project Pronto Waiver Order to help
8 facilitate a CLEC's ability to collocate in an RT site. Those commitments are as follows:

9 "Future-Deployed Huts and CEVs. As to future-deployed SBC/Ameritech incumbent
10 LEC huts and CEVs using a NGDLC architecture that supports both POTS and xDSL
11 services, after September 15, 2000, the SBC/Ameritech incumbent LECs will deploy
12 these structures (which generally serve 2,000 or more lines) so that approximately 20% of
13 the space that can be used to install equipment in those structures for telecommunications
14 carriers will be made available to all telecommunications carriers under the
15 Commission's collocation rules without the need for a SCA."
16

17 This commitment means that for all newly constructed Huts and Controlled Environmental
18 Vaults (CEVs), which are two forms of RTs used in conjunction with Project Pronto, SBC
19 would build these new structures to provide 20% of the space as space capable for
20 collocation of any telecommunications carrier's equipment, including CLECs.

21 "Future-Deployed Cabinets. As to future-deployed SBC/Ameritech incumbent LEC
22 cabinets using a NGDLC architecture that supports both POTS and xDSL services, no
23 later than September 15, 2000, the SBC/Ameritech incumbent LEC will offer a SCA
24 process described below in response to a telecommunications carrier's request for space
25 at a new cabinet site. (Cabinets generally serve fewer than 2,000 lines.) In response to a
26 SCA and consistent with its terms and conditions, the SBC incumbent LECs will deploy
27 the new cabinet so that approximately 15% of the space that can be used to install
28 equipment in such cabinet will be made available to all telecommunications carriers, or at
29 the discretion of the SBC/Ameritech incumbent LEC, otherwise make access
30 arrangements available using an adjacent cabinet structure. For all future-deployed
31 cabinets using a NGDLC architecture, the SBC/Ameritech incumbent LECs will pre-plan
32 those remote terminal sites to accommodate a future adjacent structure(s)."

1 This commitment means that for all newly deployed cabinets SBC, in response to a Special
2 Construction request from a CLEC, will essentially upsize the cabinets by 15% in order to
3 provide for the collocation of CLEC-owned equipment.

4 "Special Construction Arrangement - Structures. No later than September 15, 2000,
5 SBC/Ameritech will establish a SCA process for processing a telecommunications
6 carrier's request, including the request of a separate Advanced Services affiliate, for
7 space to install the carrier's owned or leased equipment either in an existing or future
8 deployed remote terminal or, in a newly deployed adjacent cabinet structure."⁴
9

10 This commitment means that for existing structures, where possible, SBC will provide for
11 additional collocation space within or adjacent to a Project Pronto RT site in response to an
12 SCA from a CLEC. This essentially means that if a CLEC were willing to reimburse SBC
13 for making this collocated space available, SBC would provide space within or adjacent to
14 any RT location.

15 **Q. HOW DID THESE COMMITMENTS MADE BY SBC COME TO FRUITION?**

16 A. In order to deploy the Project Pronto equipment within its network, SBC requested a
17 clarification of the SBC/Ameritech merger conditions from the FCC to state that the SBC
18 ILECs could own and place the "Advanced Services" portions of the Project Pronto network
19 architecture (most notably the Optical Concentration Device and ADLU Line Card
20 mentioned below). As a result of this request the FCC opened a comment cycle within which
21 various CLECs filed comments in relation to the Project Pronto equipment. The FCC
22 concluded that

23 "the public interest is served by allowing SBC's incumbent local exchange carriers
24 (LECs) to own certain equipment used to provide advanced services throughout SBC's
25 service area, so long as SBC takes the actions described in this order to ensure
26 competitors have the ability to compete effectively in the advanced services marketplace.

4 Project Pronto Waiver Order at 39.

1 The action we take today should enable competing carriers to provide advanced services
2 in SBC's territory, while at the same time facilitating SBC's deployment of advanced
3 services to the mass market."⁵
4

5 The actions referenced above by the FCC are the set of commitments made by SBC to ensure
6 that Project Pronto was deployed in a pro-competitive manner. Further, these commitments
7 were a direct result of the various filings and requests made by the CLECs in the FCC's
8 comment cycle.

9 **Q. HAVE ANY OF THE CLECS WHO PARTICIPATED IN THE FCC'S COMMENT**
10 **CYCLE ACTUALLY REQUESTED THE VARIOUS ITEMS INCLUDED IN SBC'S**
11 **COMMITMENTS TO THE FCC?**

12 A. Despite the fact that the CLECs filed numerous comments requesting several of the
13 components included in SBC's commitments, and were involved in negotiations on all of
14 these issues, there have been few actual requests in relation to the specific items mentioned.
15 To my knowledge, only one CLEC has requested any of the various options listed in these
16 commitments.

17 **Q. WHAT IS THE SIGNIFICANCE OF THIS LACK OF INTEREST FROM THE CLEC**
18 **COMMUNITY?**

19 A. The significance of the lack of demand by the CLEC community for the various
20 commitments made by SBC is that the CLECs requested commitments based on claims of an
21 inability to compete without them, and instead have continued to compete without taking
22 advantage of the commitments at all. This is, not unlike the CLECs' requests here that
23 Project Pronto be "unbundled" into pieces when nobody ever explains how an individual
24 piece could ever be used. This is not an idle concern. The result of CLECs' lack of interest
25 in the very FCC commitments they requested is that SBC has incurred a large degree of

5 Id. at 1

1 capital expense to meet these conditions, but, because the CLECs have not utilized items
2 (such as SBC's agreement to upsize newly deployed CEVs and huts), SBC has to date not
3 been able to even begin recovering its costs. The CLECs offer nothing in their testimony to
4 remove the concern that the same scenario could occur ⁱⁿ ~~if Ameritech~~ Illinois.

5 **Q. COVAD WITNESS CARTER CLAIMS THAT IF PROJECT PRONTO WERE NOT**
6 **"UNBUNDLED," ILLINOIS NEIGHBORHOODS WOULD BE "WALLED OFF**
7 **FROM COMPETITIVE ENTRY BY COVAD." IS THIS STATEMENT CORRECT?**

8 A. No. As I have outlined, Covad could choose to place its own DSLAMs in the loop portion of
9 the network and access SBC's existing subset of subloop UNEs to provision its chosen form
10 of DSL service. Project Pronto does nothing to impede this from occurring. Furthermore,
11 the Broadband Service offering is available to CLECs today where Project Pronto is
12 deployed to provide ADSL service to an end user location.

13 **Q. MS. CARTER ALSO CLAIMS THAT IF AMERITECH ILLINOIS IS NOT**
14 **REQUIRED TO PROVIDE UNBUNDLED ACCESS OVER THE PROJECT**
15 **PRONTO ARCHITECTURE, THAT COVAD WILL HAVE NO EFFECTIVE**
16 **ALTERNATIVE MEANS TO PROVIDE RESIDENTIAL ADSL SERVICE. IS THIS**
17 **CORRECT?**

18 A. No. As I discuss in my Direct Testimony, Covad has the ability today to provision ADSL
19 service over the Project Pronto architecture using the SBC Broadband Service. Furthermore,
20 as I have outlined above CLECs continue to have their existing options available to them to
21 self-provision ADSL service via the placement of their own equipment and accessing SBC's
22 unbundled subloops offerings.

23 **VI. PROJECT PRONTO AS AN "UNBUNDLED LOOP"**

24 **Q. COVAD WITNESS CARTER SUGGESTS THAT AMERITECH ILLINOIS IS**
25 **OBLIGATED TO OFFER CLECS "UNBUNDLED" ACCESS TO THE PROJECT**
26 **PRONTO FACILITIES BASED UPON HER ASSERTION THAT PROJECT**
27 **PRONTO IS NOTHING MORE THAN A LOOP THAT AMERITECH ILLINOIS**

1 **ALREADY IS OBLIGATED TO PROVIDE ON AN UNBUNDLED BASIS. DO YOU**
2 **AGREE WITH THIS STATEMENT?**

3 A. No. In fact, Covad's witnesses contradict their own arguments in this area. On one hand,
4 Covad argues that the FCC rules in relation to loops require that attached electronics be
5 included in the FCC's definition of a loop. Ms. Carter then claims that the ADLU card is
6 attached electronics to an unbundled loop. The FCC's definition of a loop, however,
7 includes a specific exclusion of DSLAMs or any other attached electronics used to provide
8 advanced services. An ADLU line card undeniably is used to provide advanced services.
9 Ms. Carter then contradicts herself by arguing later in her testimony (Carter 14) that the
10 ADLU card is a DSLAM, which by definition is not part of a loop, in order to support her
11 claim that ADLU cards must be "collocated."

12 The simple fact of the matter is that the ADLU card, in conjunction with the entire NGDLC
13 system, does provide a DSLAM-like functionality (as was found by the FCC in the Pronto
14 Waiver Order). As such, it must be excluded from the attached electronics included with an
15 unbundled loop.

16 **Q. CAN THE PROJECT PRONTO ARCHITECTURE AS A WHOLE BE EQUATED**
17 **TO AN UNBUNDLED LOOP, AS SUGGESTED BY MS. CARTER AND OTHER**
18 **CLEC WITNESSES?**

19 A. No. As explained in the UNE Remand Order, the FCC defines a local loop to expressly
20 exclude attached electronics "used in the provision of Advanced Services" from its definition
21 of the local loop.⁶ Furthermore, the FCC Project Pronto Waiver Order found that the ADLU
22 card was in fact the functional equivalent to Advanced Services equipment.⁷

6 47 C.F.R. § 51.319(a)(1) (emphasis added).

7 Project Pronto Waiver Order, para. 14.

1 In addition, as defined by the FCC, the local loop originates at a distribution frame, ordinarily
2 the Main Distribution Frame (MDF) at the serving central office. The basis of this definition
3 is that access to the line side of the local switch is typically provided at the Main Distribution
4 Frame. The line side of the local switch typically refers to the individual end user copper
5 facility, that when cross-connected to a local switch port provides a telecommunications
6 service. Thus, the MDF provides access to each individual line.

7 However, an xDSL service as provisioned over the Project Pronto architecture is
8 fundamentally different; there is no distribution frame that provides access to an individual
9 line. As stated previously, the CLEC's point of access to the Project Pronto network
10 architecture would be via the OCD. The OCD serves to route and aggregate traffic from
11 each RT site to an individual CLEC's leased port on the OCD. This is provided at either a
12 DS3 or an OC-3c level. With this architecture, a single end user line could not be accessed at
13 the OCD port in any practical manner. Therefore, the Project Pronto architecture does not
14 provide an individual local loop facility between a single end user and a distribution frame.
15 The "packetized" representation of these individual end user's DSL services exist within the
16 OC-3c transport facility and the OCD only as virtual circuits, to which there is no physical,
17 individual access.

18 **Q. DOES THE ATTEMPT BY COVAD AND AT&T TO DEFINE THE ENTIRE**
19 **PROJECT PRONTO DSL ARCHITECTURE AS A SINGLE UNBUNDLED LOOP**
20 **SUGGEST ANYTHING ABOUT THEIR REAL BUSINESS NEEDS?** *e*

21 **A.** Yes. By trying to define all of the Project Pronto DSL architecture as a single loop, Covad
22 and *e* AT&T seem to suggest that what they really want is the ability to access an end-to-end
23 offering over the Pronto DSL architecture. That, of course, is precisely what Ameritech
24 Illinois has always been willing to offer through the Broadband Service. Sprint, too, testifies

1 that it is really looking for an "end-to-end" method of accessing the Pronto architecture. This
2 suggest to me that the Broadband Service, as coupled with all the other requirements of the
3 Project Pronto Waiver Order, already provides a meaningful way to meet the CLECs' actual
4 business needs.

5 VII. PACKET SWITCHING

6 **Q. SEVERAL CLEC WITNESSES ARGUE THAT THE FOUR CONDITIONS UNDER**
7 **WHICH AMERITECH ILLINOIS WOULD BE OBLIGATED TO UNBUNDLE**
8 **PACKET SWITCHING UNDER THE FCC'S RULES HAVE BEEN MET. PLEASE**
9 **REPLY TO THIS ASSESSMENT.**

10 A. I will address the CLECs' claims on each of the four criteria:_____

11 **(i) The incumbent LEC has deployed digital loop carrier systems, including but not**
12 **limited to, integrated digital loop carrier or universal digital loop carrier systems;**
13 **or has deployed any other system in which fiber optic facilities replace copper**
14 **facilities in the distribution section (e.g., end office to remote terminal, pedestal or**
15 **environmentally controlled vault);** _____

16 On this first criteria the CLECs claim that the mere deployment of any DLC system is
17 enough. ^e I do not dispute the fact that if deployment occurs Ameritech Illinois would deploy
18 NGDLC systems as part of Project Pronto, but I disagree that this meets the FCC's condition,
19 as explained in my Direct Testimony and as will be addressed in legal briefs.

20 **(ii) There are no spare copper loops capable of supporting the xDSL services the**
21 **requesting carrier seeks to offer;**

22 Several CLEC witnesses seem to claim that Ameritech Illinois' planned Project Pronto
23 network meets this criteria, alleging that existing copper facilities will not be useable for
24 CLECs to provide their chosen form of xDSL service. The CLEC witnesses all base this
25 claim based upon two primary issues: (1) the so-called spectrum interference issues
26 addressed above and (2) the same distance limitation issue addressed above.

1 On the spectral interference issue, as Mr. Keown explains, the CLECs' stated concerns are
2 not substantiated. Regarding distance limitations, it is simply not correct to state that
3 distance limitations prevent CLECs from offering xDSL to end users with existing copper
4 facilities. As I stated above, a CLEC could place a DSLAM in the loop portion of Ameritech
5 Illinois' network (similar to how Ameritech Illinois is placing RT sites in its network) and
6 then access the copper sub-loops to end user locations and transport facilities back to the
7 central office. The CLECs' arguments against placing their own equipment are purely
8 economic, not technical.

9 Further, SBC's commitments in relation to the ECS also enable a CLEC's ability to access
10 these facilities. Cooper subloops therefore are in fact available to CLECs today and are
11 capable of offering the various forms of xDSL as desired by the CLECs.

12 **Q. DOES ANY CLEC WITNESS MAKE A DIFFERENT ARGUMENT?**

13 A. Yes. Covad witness Carter argues that the second criteria is satisfied because Ameritech
14 Illinois allegedly will not allow CLECs to interconnect with the Project Pronto architecture.
15 Ms. Carter also claims that Ameritech Illinois argues that Covad cannot purchase subloops
16 elements that make up the Project Pronto architecture, thus Covad could not access the
17 electronic functionalities of the remote terminal or interconnect with the fiber and copper
18 subloop portions of the loop. Ms. Carter then concludes that Covad would have no way of
19 deploying its own DSLAM in an Ameritech remote terminal and interconnecting with
20 Ameritech's Project Pronto loops. Ms. Carter is completely incorrect in these claims. First,
21 a CLEC can place its own DSLAM in an RT site or in its own physical structure and gain
22 access to the copper facilities and/or necessary fiber sub-loops back to the central office.
23 This is provided in Illinois today. Second, Ms. Carter is incorrectly paraphrasing Ameritech

1 Illinois' statements in this area. Ameritech Illinois has not argued that CLECs cannot have
2 access to the copper facilities in the Project Pronto architecture or cannot have high-capacity
3 subloops for access to the central office. These elements are available on an unbundled basis
4 today. Ameritech Illinois has simply argued that access to such elements does not exist
5 within an RT site. They are of course accessible at the SAI. It is interesting to note that no
6 other CLEC witness endorses Ms. Carter's claims.

iii

7 (p) **The incumbent LEC has not permitted a requesting carrier to deploy a Digital**
8 **Subscriber Line Access Multiplexer at the remote terminal, pedestal or**
9 **environmentally controlled vault or other interconnection point, nor has the**
10 **requesting carrier obtained a virtual collocation arrangement at these subloop**
11 **interconnection points as defined by § 51.319(b);**

12 In regard to this third criteria, the CLEC witnesses essentially argue the same three points:

13 (1) that this criteria is met because Ameritech Illinois allegedly is not providing the CLECs
14 the ability to collocate a DSLAM under the same terms and conditions as Ameritech Illinois
15 because Ameritech Illinois is placing line cards that, according to the CLECs, are DSLAMs
16 by themselves; (2) that there is a lack of collocation space in RT sites making the placement
17 of a CLEC DSLAM infeasible and (3) that it is uneconomic for CLECs to collocate and
18 access unbundled subloops in each and every RT site.

19 On this first point, while the FCC concluded in the Project Pronto Waiver Order that the line
20 card provides a DSLAM functionality, the line card itself is not a DSLAM. The FCC stated
21 in the UNE Remand Order that the "the DSLAM combines: (1) the ability to terminate
22 copper customer loops (which includes both a low-band voice channel and a high-band data
23 channel or solely a data channel); (2) the ability to forward the voice channels, if present to a
24 circuit switch or multiple circuit switches; (3) the ability to extract data units from the data


1 channels on the loops; and (4) the ability to combine data units from multiple loops onto one
2 or more trunks that connect to a packet switch or packet switches.”⁸

3 While the line card by itself performs some of the functions mentioned above, most notably
4 the first ~~three~~^{two} items mentioned above, the line card is not technically capable of performing
5 the packetization/multiplexing function listed in the fourth item above. In the Alcatel
6 Litespan 2000 system that function is performed by the common card referred to as the ATM
7 Bank Control Unit (ABCU), along with the system software. Thus, while the entire NGDLC
8 system - common cards, line cards and system software included - does provide a DSLAM
9 functionality, an ADLU line card alone does not. Because the NGDLC system (and not the
10 line card) is the DSLAM equivalent in the Project Pronto architecture, the packet switching
11 rules would require in my opinion that CLECs be able to collocate their own actual DSLAM
12 under the same terms and conditions as Ameritech Illinois would place its NGDLC within an
13 RT site.

14 Regarding the alleged the lack of collocation space in RT sites, as I have indicated above,
15 SBC has made various commitments to the FCC to either increase the availability of such
16 collocation space and/or to allow a CLEC to request additional space to be made available
17 via special construction. All of these commitments are designed to ensure that CLECs have
18 options available to them today that would ensure that collocation space is available or is
19 capable of being made available at Project Pronto RT sites.

8 FCC UNE Remand Order at para. 303.

1 Finally, the CLECs' claim that it is not economic for a CLEC to deploy its own DSLAMs at
2 RT sites is irrelevant. The FCC criteria is simply whether it is possible for a CLEC to
3 collocate its DSLAM, not whether such collocation is economically attractive.

4 ^{iv} ~~(*)~~ **The incumbent LEC has deployed packet switching capability for its own use**
5 As I stated in my Direct Testimony, this fourth condition involves the ILEC's deployment of
6 packet switching for its own use. The CLECs argument is that Ameritech Illinois is in fact
7 deploying packet switching for its own use. With the planned Project Pronto deployment,
8 Ameritech Illinois would not be deploying any packet switching equipment for its "own use"
9 because Ameritech Illinois would not be providing any type of DSL service on a retail basis. 

10 The DSL-capable portion of the Project Pronto NGDLC RTs and the OCD equipment would
11 be deployed by Ameritech Illinois only for CLECs' use (including Ameritech Illinois
12 Advanced Services Affiliates) in provisioning their own retail DSL services to end users.

13 **Q. AT&T WITNESS STARKEY ALSO CLAIMS THAT PROJECT PRONTO**
14 **ARCHITECTURE IS A LOOP AND IS NOT PACKET SWITCHING BECAUSE IT**
15 **DOES NOT PROVIDE A SWITCHING FUNCTION. IS THIS CLAIM CORRECT?**

16 A. No. Mr. Starkey bases this claim on the fact a DSLAM (or in this case the NGDLC
17 equipment) performs a transmission functionality and not switching functionality. Mr.
18 Starkey basically claims that no a switching is performed within the NGDLC. In order for
19 Mr. Starkey's claim to be valid, both the OCD and the NGDLC would have to be determined
20 to not provide a switching functionality. The FCC, however, has already said in the UNE
21 Remand Order that a DSLAM is part of packet switching, and an NGDLC is the functional
22 equivalent of a DSLAM. The FCC has also stated in the Project Pronto Waiver Order that an
23 OCD is an ATM switch, and an ATM switch is by definition a packet switch. Thus, Mr.
24 Starkey's claim is baseless.

1 Q. SEVERAL CLECS ARGUE IN THEIR TESTIMONY THAT ONE OF THE
2 PRIMARY BENEFITS OF THE UNBUNDLING OF THE PROJECT PRONTO
3 ARCHITECTURE WOULD BE TO ENSURE THAT CLECS HAD THE
4 CAPABILITY TO DEPLOY THEIR CHOSEN VERSION OF XDSL SERVICE. THE
5 CLECS CLAIM THAT THIS WOULD ENABLE NEW TECHNOLOGIES TO BE
6 DEPLOYED AND ALLOW CLECS TO DIFFERENTIATE THEIR SERVICE
7 OFFERINGS FROM THOSE OF AMERITECH ILLINOIS. THE COMMISSION
8 ALSO MENTIONED THIS ISSUE AS A PRIMARY MOTIVATION BEHIND THEIR
9 ORIGINAL ORDER IN THIS CASE. CAN YOU PLEASE RESPOND TO THIS
10 CLAIM?

11 A. Yes. First, at present the only flavor of xDSL that is technically compatible with the
12 Litespan 2000 system is ADSL, which is already available to CLECs as part of the
13 Broadband Service offering. Whether CLECs are provided "unbundled" access to this
14 architecture or the existing Broadband Service offering does not alter this fact.

15 Second, as is addressed throughout my testimony, SBC is currently conducting a
16 collaborative with the CLEC community under the SBC/Ameritech Merger Conditions to
17 specifically address the potential deployment of future features and functions to address these
18 same concerns that were raised by the CLECs in the FCC comment cycle that led to the FCC
19 Project Pronto Waiver Order.

20 VIII. FUTURE FEATURES AND FUNCTIONS

21 Q. MR. WATSON STATES THAT SBC'S COMMITMENT TO HOST
22 COLLABORATIVE SESSIONS IN REGARD TO THE DEPLOYMENT OF FUTURE
23 FEATURES AND FUNCTIONS IS INADEQUATE BECAUSE IT DOES NOT
24 PROVIDE RHYTHMS ASSURANCE THAT SBC WILL DEPLOY A NEW
25 FEATURE OR FUNCTION AS IT BECOMES AVAILABLE. CAN YOU PLEASE
26 COMMENT ON THIS ISSUE? (WATSON 19)

27 A. While I cannot speak for Mr. Watson's or Rhythms' opinion on the effectiveness of the
28 collaborative sessions, I do take issue with the claim by Mr. Watson that SBC would agree to
29 meet with the CLECs and discuss the technology but then not deploy anything unless its data
30 affiliate wants to use the technology. SBC treats all carriers in these collaborative sessions

1 equally. Furthermore, to date SBC is offering all of the features and functions of its Project
2 Pronto deployment – those being ADSL with a UBR and CBR ATM QoS. If the vendor of
3 SBC's Project Pronto equipment develops new features and functions – such as G.SHDSL or
4 other ATM QoS offerings SBC would, per its collaborative commitment, consider the
5 deployment of such feature and/or function if such deployment were deemed practical from a
6 network perspective. Any decision to not deploy a new feature and/or function requested by
7 the CLECs would be due to the very real capacity constraints of the Litespan system that Mr.
8 Watson claims do not exist. Indeed, SBC has already rejected a request from its affiliate
9 made during the collaborative.

10 **Q. IF SBC CHOSE TO NOT DEPLOY A NEW TECHNOLOGY REQUESTED BY A**
11 **CLEC IN THESE COLLABORATIVE SESSIONS BASED SIMPLY UPON SBC'S**
12 **OWN MARKETING PLANS, AS IS SUGGESTED BY MR. WATSON, IS THERE A**
13 **CURRENT REMEDY AVAILABLE TO CLECS TO DISPUTE THE DECISION?**

14 A. Yes. In the Project Pronto Waiver Order the FCC states the following: "In the event SBC
15 fails to accommodate technically feasible requests or improperly alleges capacity restraints,
16 parties are free to take advantage of the alternative dispute resolution commitment already
17 contained in the Merger Conditions, to file a section 208 complaint with the Commission
18 alleging a violation of these commitments, or to pursue other remedies before any other
19 appropriate authority."⁹ To date no CLEC has argued to the FCC or to any other entity that
20 SBC has violated its commitment by refusing to deploy a currently available feature or
21 function. However, a majority of the CLEC claims in this case seek to create a mandate that
22 CLECs be able to force Ameritech Illinois to deploy features and functions that are not yet
23 available over the architecture (such as dedicated PVPs, G.SHDSL, VBR service etc.) or that

9 FCC Project Pronto Waiver Order at 44.

1 may cause serious capacity constraints or other problems.

2 **Q. IN ADDRESSING THE SBC BROADBAND SERVICE, MR. WATSON CLAIMS**
3 **THAT RHYTHMS OFFERS OTHER FORMS OF XDSL THAT CAN BE "LINE**
4 **SHARED" BUT ARE NOT OFFERED BY SBC WITH THE BROADBAND**
5 **SERVICE. WHY IS THIS THE CASE? (WATSON 13)**

6 A. I believe that the forms of xDSL that Mr. Watson is referring to are G.Lite and Rate Adaptive
7 DSL ("RADSL"). The reason that SBC is not offering these forms of xDSL to CLECs with
8 its Broadband Service today is simply that the Alcatel equipment does not support these
9 offerings at this time. Alcatel is working on the deployment of a G.Lite offering. Consistent
10 with the FCC Project Pronto Waiver Order, SBC would be willing to provide G.Lite on an
11 RT-by-RT basis to CLECs upon request. However, to date there has been no CLEC demand,
12 from Rhythms or any other CLEC, in SBC's Project Pronto collaborative requesting that
13 G.Lite service be deployed.

14 **Q. MR. WATSON ALSO STATES THAT THE BROADBAND SERVICE WOULD**
15 **PREVENT RHYTHMS AND OTHER CLECS FROM OFFERING SERVICES SUCH**
16 **AS VOICE OR VIDEO OVER XDSL. DO YOU AGREE WITH THIS CLAIM?**

17 A. No. First, as I outlined in my Direct Testimony, Project Pronto only serves to enhance a
18 CLEC's ability to provide service and does not take any of the CLEC's existing options
19 away. Therefore, Project Pronto does not prevent a CLEC from doing anything. If a CLEC
20 wants to deploy Voice over DSL (VoDSL) or Video-on-Demand, a CLEC can do that today
21 by deploying its own equipment in the loop portion of the network and either by purchasing
22 existing UNEs or building out its own facilities.

23 Second, Mr. Watson bases this claim on a statement that SBC is not offering a sufficient
24 CBR ATM Quality of Service to support VoDSL. This is incorrect. The Broadband Service
25 does provide a Constant Bit Rate (CBR) ATM Quality of Service at the 96 Kbps speed. SBC

1 traffic engineers have estimated that this 96 Kbps offering is of sufficient bandwidth to
2 provide at least one voice line within the DSL spectrum.

3 **Q. SEVERAL CLEC WITNESSES ARGUE THAT THE BROADBAND SERVICE IS**
4 **NOTHING MORE THAN RESALE AND THIS CLECS DO NOT HAVE THE**
5 **ABILITY TO DIFFERENTIATE THEIR SERVICES. DO YOU AGREE WITH THIS**
6 **CLAIM?**

7 A. No. First, the Broadband Service provides CLECs physical use of the Project Pronto
8 facilities terminated in a collocation cage. Because the CLECs have physical access to the
9 facilities, the Broadband Service immediately is significantly different from the resale
10 situation, which does not provide a reseller access to any of an ILEC's facilities.

11 Second, as I outline in my Direct Testimony, the Broadband Service provides the CLECs
12 several different choices in terms of the following: (1) How a CLEC may choose to use the
13 copper facilities (e.g., line shared, data only or combined voice and data), (2) Which
14 Permanent Virtual Circuit (UBR, CBR or UBR + CBR) a CLEC may desire to use, and (3)
15 Which vintage of OCD port (OC-3c or DS3) a CLEC may desire to use. Thus, for example,
16 whereas one CLEC may choose to only use the line shared version of the Broadband Service
17 (essentially only offering the ADSL service), another CLEC may choose to utilize the
18 Combined Voice and Data version of the Broadband Service (offering both voice and data).

19 Furthermore, because SBC offers the various PVC alternatives, a CLEC may use only a UBR
20 PVC (for the purposes of offering exclusively high-speed Internet access) and another CLEC
21 may choose to use the UBR + CBR option (in which case the CLEC could offer the same
22 high-speed Internet access using the same UBR PVC and offer VoDSL using the CBR PVC).
23 The end result is that there are several options available to CLECs even within the context of

1 the Broadband Service offering with which to differentiate themselves in the broadband
2 market.

3 **Q. IN THE CONTEXT OF "LINE SHARING" ARE ANY OF THE ADVANCED**
4 **SERVICES SUCH AS G.SHDSL OR SDSL MENTIONED BY THE CLECS**
5 **THROUGHOUT THEIR TESTIMONY RELEVANT?**

6 A. No. As outlined in my Direct Testimony and agreed to by Rhythms Witness Watson, there
7 are only to date three forms of xDSL capable of being "line shared" – G.Lite, RADSL and
8 ADSL. ADSL is offered by SBC over the Project Pronto architecture today in conjunction
9 with the Broadband Service offering. Further, as I mentioned, the G.Lite capability is under
10 development by Alcatel, although to my knowledge no CLEC has requested the ability to
11 offer G.Lite over the Project Pronto architecture. The only remaining form of xDSL that is
12 capable of line sharing is RADSL, which to my knowledge Alcatel is not planning to offer in
13 the immediate future.

14 **IX. TECHNICAL FEASIBILITY OF "UNBUNDLING"**

15 **Q. SEVERAL CLEC WITNESSES CLAIM THAT THERE IS NO BASIS FOR**
16 **AMERITECH ILLINOIS CLAIMS THAT IT IS TECHNICALLY INFEASIBLE TO**
17 **"UNBUNDLE" PROJECT PRONTO. PLEASE RESPOND.**

18 A. A majority of the CLEC witnesses claim that the Project Pronto architecture can be
19 "unbundled" but do not provide any explanation how this could occur, or, if it could, how
20 they would ever use the individual "UNEs" required by the Order. Nor do a majority of
21 these witnesses provide any evidence to contradict Ameritech Illinois' arguments as to why
22 this "unbundling" is not feasible and would create significant capacity problems within the
23 Pronto DSL network. Regardless of the CLECs' claims, there are undeniable technical
24 issues related to the "unbundling" of the Project Pronto architecture in the manner suggested
25 by the CLECs.

1 **Q. RHYTHMS WITNESS WATSON POINTS OUT AN INTERNAL SBC DOCUMENT**
2 **IN AN ATTEMPT TO VALIDATE HIS CLAIM THAT IT IS TECHNICALLY**
3 **FEASIBLE TO “UNBUNDLE” THE PROJECT PRONTO ARCHITECTURE.**
4 **PLEASE RESPOND TO MR. WATSON’S STATEMENT.**

5 A. Mr. Watson mentions an internal SBC technical service description that outlines what at the
6 time SBC referred to as the Broadband UNE. In that document, SBC discusses the various
7 components that made up the Broadband UNE at that time – those being the four elements
8 listed by Mr. Watson. As I understand it, it is only the FCC or state commissions that,
9 applying the governing law, determine whether network elements must be “unbundled” and
10 thus provided as “UNEs.” Moreover, despite the fact that this document lists the various
11 components named as UNEs, Mr. Watson is incorrect to claim that SBC ever had the intent
12 to offer these elements as stand-alone separate “UNEs.” The Broadband UNE product was at
13 the time the same product that is referred to as the Broadband Service offering today –
14 simply with a change in name. That product and the current product were never intended by
15 SBC to be offered on a piece-part basis and simply because SBC choose to refer to the
16 various components that make up the end-to-end solution as “UNEs” in the past does not
17 make it technically feasible to isolate and “unbundled” them. Indeed, if one reads further
18 into the document cited by Mr. Watson it is made clear that the offering could exist only as
19 an end-to-end offering.

20 **Q. MR. WATSON FURTHER CLAIMS THAT IT IS TECHNICALLY FEASIBLE TO**
21 **PROVIDE VOICE AND DATA ON A SINGLE FACILITY IN THE PROJECT**
22 **PRONTO NETWORK ARCHITECTURE. IS THIS STATEMENT CORRECT?**

23 A. As I have explained, it would be technically possible to reconfigure the Project Pronto
24 architecture to force the voice and data signal onto one fiber strand through the use of Wave
25 Division Multiplexing (WDM) or through the deployment of the Litespan 2012 system.
26 However, SBC is not deploying WDM technology in its Pronto RT sites and is not deploying

1 the Litespan 2012 system on a large-scale basis as part of Project Pronto. Mr. Watson also
2 mentions the AFC UMC1000, which is another form of NGOLC. While the AFC UMC1000
3 does allow for voice and data to be placed on the same fiber strand, that device has only
4 recently completed testing in SBC's labs and thus has not been deployed to date as a portion
5 of Project Pronto.

6 **Q. MR. WATSON DISMISSES AMERITECH ILLINOIS' CLAIM THAT THE**
7 **PROJECT PRONTO ARCHITECTURE CANNOT BE "UNBUNDLED" BECAUSE**
8 **OF THE MANNER IN WHICH THE ARCHITECTURE INTERWORKS. PLEASE**
9 **RESPOND.**

10 A. Mr. Watson provides no description and/or facts to show whether or how "unbundling" of
11 the Project Pronto architecture would be feasible. As I have explained, the Project Pronto
12 architecture is simply not technically feasible to unbundle from the NGDLC RT through the
13 OCD in the end office because this portion of the Project Pronto network is a packet switched
14 network and the individual piece parts of this network cannot technically be provided as
15 stand-alone elements separate from other proposed network elements.¹⁰

16 **Q. MR. WATSON CLAIMS THAT IN REQUESTING ITS WAIVER FROM THE FCC**
17 **SBC PROVIDED A SAMPLE APPENDIX THAT OFFERED THE PROJECT**
18 **PRONTO COMPONENTS AS UNES. RHYTHMS APPEARS TO BE USING THAT**
19 **DOCUMENT TO ARGUE THAT THE "UNBUNDLING" OF PROJECT PRONTO IS**
20 **SOMEHOW TECHNICALLY FEASIBLE. IS THIS A CORRECT READING OF**
21 **THE AFOREMENTIONED APPENDIX?**

22 A. No. Rhythms has misinterpreted the intent of this document. While it is correct that at the
23 time, SBC did call what is now commonly known as the Broadband Service as an end-to-end
24 form of UNE, SBC did not indicate in that document its intention to offer any form of
25 "unbundled" access to the Project Pronto architecture in a piece-part manner.

10 47 C.F.R. 51.307 (d) : "An incumbent LEC shall provide to a requesting telecommunications carrier access to the facility or functionality of a requested network element separate from access to the facility or functionality of other network elements..."

1 Q. MR. WATSON ALSO SAYS AMERITECH ILLINOIS' ARGUMENT THAT A PVC
2 OR PVP SHOULD NOT BE PROVIDED AS A "UNE" IS INCORRECT. DO YOU
3 AGREE?

4 A. No. Once again, as I mentioned above, Mr. Watson's argument lacks any supporting
5 evidence. While I have presented detailed testimony as to the technical problems inherent to
6 offering the PVC as a stand-alone UNE in my Direct Testimony, Mr. Watson offers no
7 explanation as to this "unbundling" would occur or how CLECs would gain access to a
8 "PVC UNE" on a stand-alone basis.

9 The technical problem with offering the PVC as a separate, discrete UNE is that a PVC
10 and/or PVP cannot be accessed in any manner that does not include both the NGDLC
11 equipment in the RT and the OCD equipment in the serving wire center, both of which have
12 also been defined in the Commission's Order as separate UNEs. Therefore, a PVC or PVP
13 cannot be accessed or provided as a separate, discrete UNE separate from other network
14 elements.¹¹

15 Q. MR. WATSON STATES THAT BOTH YOURS AND DR. RANSOM'S ARGUMENTS
16 AS TO WHY A PVP IS NOT FEASIBLE ARE BASED UPON A TEMPORARY
17 SITUATION THAT WILL BE ALLEVIATED IN THE NEAR FUTURE. IS THIS
18 CORRECT?

19 A. No. Mr. Watson is responding to my testimony as to why technical limitations of the
20 Litespan 2000 make it infeasible to offer a PVP as a "UNE." While it is correct that Alcatel
21 is planning to provide an enhancement to allow multiple PVPs per channel bank, that does
22 not solve the capacity problem of providing PVPs as "UNEs," as explained in my Direct
23 Testimony.

24 Q. SEVERAL CLEC WITNESSES ARGUE THAT IT IS TECHNICALLY FEASIBLE

¹¹ *Id.*

1 TO ACCESS SUBLOOPS AT AN RT IN THE PRONTO DSL ARCHITECTURE. DO
2 YOU AGREE?

3 A. No. The CLEC witnesses argue that copper subloops can be accessed in primarily two
4 different manners. The first is by the placement of a line card into a slot in the NGDLC
5 equipment in the RT. The second is through the establishment of a cross-connect within the
6 RT site.

7 In terms of the first situation, I disagree with the CLECs' claims. First, as is outlined in the
8 testimony of several Ameritech Illinois witnesses testimony in this case, there are severe
9 operational and practical problems with CLEC line card "collocation," which directly call
10 into question the ability of Ameritech Illinois to manage the reliability and security of its
11 network and thus call into question the technical feasibility of such a request. Second, even
12 if CLEC line card "collocation" were deemed technically possible, it does not provide
13 CLECs access to subloops in the manner contemplated by the FCC in the UNE Remand
14 Order, as is outlined in detail in my Direct Testimony.

15 In terms of placing a cross-connect within the RT, I do not disagree that this arrangement is
16 technically possible. However, such cross-connect fields do not exist in Project Pronto RT
17 sites today. Therefore, in this instance the CLECs are requesting Ameritech Illinois to re-
18 design its RT sites to support such an arrangement. Once again, however, the CLECs do not
19 provide any certainty in terms of meaningful cost recovery if Ameritech Illinois were to
20 undertake this effort.

21 Furthermore, the Engineering Controlled Splice point creates a cross-connect point near the
22 RT site. However, the CLEC witnesses have discounted the ECS arrangement based upon
23 the economics of deploying the ECS. Essentially, the CLEC argument is that CLECs cannot

1 afford to pay Ameritech Illinois to provide an ECS, but rather that Ameritech Illinois should
2 be forced to redesign its plans to meet the CLECs' allegedly preferred form of access. This
3 is nothing more than the CLECs attempting to shift the investment risk and burden of their
4 business model to Ameritech Illinois.

5 **Q. COVAD WITNESS GINDLESBERGER ALSO ATTEMPTS TO ADDRESS**
6 **TECHNICALLY FEASIBLE ACCESS POINTS TO THE PROJECT PRONTO**
7 **ARCHITECTURE BY CLAIMING THAT LECS CAN LEASE A PVP AND USE AN**
8 **ECS TO ACCESS SUBLOOPS AT VARIOUS SERVING AREAS INTERFACES PER**
9 **HIS ATTACHED DIAGRAM. DO YOU AGREE WITH HIS ILLUSTRATION?**

10 A. No. While Mr. Gindlesberger at a high level does illustrate how an ECS could be used to
11 provide CLECs access to two SAIs from one channel bank using an ECS arrangement, he
12 does not address how a CLEC could actually access a PVP (much less why they would ever
13 want to do so). A PVP would have to be provisioned on the fiber portion of the network
14 from the RT site to the OCD. Mr. Gindlesberger's illustration provides no example of how a
15 CLEC would obtain access to a PVP and/or the fiber portion of the Project Pronto network
16 architecture.

17 **Q. SEVERAL CLEC WITNESSES CLAIM THAT SBC CHOSE TO DEPLOY PRONTO**
18 **DSL ARCHITECTURE IN A MANNER THAT PREVENTS CLEC ACCESS TO RTS.**
19 **CAN YOU PLEASE REPLY TO THIS CLAIM?**

20 A. Yes. the CLECs are claiming that Ameritech Illinois intentionally designed the Project
21 Pronto network architecture to prevent CLECs from accessing subloops at an RT site by
22 using a hard-wired configuration rather than placing cross-connect panels in each RT site.
23 This claim has no basis in fact. Ameritech Illinois is using both existing (upgraded) RT sites
24 and newly placed RT sites as part of its Project Pronto build. In terms of existing RT sites,
25 NGDLC has been deployed for many years (including Litespan 2000) in Illinois with a
26 spliced configuration. This is not a new development and certainly was not a decision made

1 by SBC to preclude competitive access. Additionally, in terms of new RT sites, Ameritech
2 Illinois continued to follow the existing practices for the placement of NGDLC and for
3 standard DLC as well that being in a spliced, or hard-wired, configuration. There are several
4 advantages to this configuration, not the least of which is that it minimizes the number of
5 points of failure in the network that could create maintenance problems. Furthermore, even
6 where facilities are spliced to the backplane of the NGDLC equipment, Ameritech Illinois
7 offers the ECS to facilitate CLECs obtaining access to the copper facilities if they so desire.

8 **Q. MR. GINDLESBERGER RELIES ON PART OF YOUR TESTIMONY WHERE YOU**
9 **STATE THAT IT MIGHT BE TECHNICALLY POSSIBLE TO PROVIDE A PVC OR**
10 **PVP ON AN UNBUNDLED BASIS. DO YOU AGREE WITH THIS**
11 **PARAPHRASING OF YOUR TESTIMONY?**

12 A. Absolutely not. Mr. Gindlesberger conveniently leaves out the rest of my statement in the
13 same sentence that discusses the impracticability of such an offering. I plainly said that
14 providing a PVP as a "UNE" is infeasible.

15 **Q. DO YOU AGREE WHERE MR. GINDLESBERGER STATES THAT THE ONLY**
16 **MEANS FOR CLECS TO ACCESS SUBLOOPS IS AT THE ECS?**

17 A. No. A CLEC could cable out from their collocated equipment or any CLEC-created separate
18 structure to the SAI location in order to access copper subloops terminating at the SAI. The
19 ECS is simply an enhancement to allow CLECs to access many SAIs at one centralized
20 location in contrast to cabling out to each and every SAI location.

21 **Q. DO YOU AGREE WITH MR. WATSON'S CLAIM THAT IT IS TECHNICALLY**
22 **FEASIBLE TO PROVIDE THE ADLU CARD AS A "UNE"?**

23 A. No. The ADLU card cannot technically be considered a UNE for similar reasons that a PVC
24 and PVP cannot be considered a UNE. None of these, line card included, are accessible as
25 discrete network elements, separate from the other network elements in the Project Pronto

1 network architecture. As I have stated in several instances, the architecture interworks as a
2 form of packet switched network from the RT to the OCD in the serving wire center.

3 Nothing that Mr. Watson proposes changes that fundamental fact.

4 **X. CLEC CLAIMS REGARDING THE BROADBAND SERVICE**

5 **Q. SEVERAL CLEC WITNESSES STATE THAT THE BROADBAND SERVICE WILL**
6 **NOT MEET THEIR BUSINESS NEEDS AND THUS IS NOT ACCEPTABLE**
7 **ALTERNATIVE TO "UNBUNDLING." PLEASE RESPOND TO THESE CLAIMS.**

8 A. While I cannot speak for the compatibility of the Broadband Service product with the
9 CLEC's business plans, I can speak to the alternatives that the Broadband Service provides in
10 comparison to the "unbundling" of the Project Pronto architecture. First, the Broadband
11 Service already provides CLECs the use of the architecture at TELRIC-based rates. Because
12 the product is an end-to-end service offering and is not unbundled into piece parts, this is the
13 most cost efficient architecture(and, as far as I can tell, an end-to-end offering is really all
14 most CLECs want). Second, the Broadband Service already provides the full capabilities of
15 the Litespan 2000 system – that being ADSL and the UBR and CBR ATM QoS options –
16 with the one constraint that the CBR service is limited to 96 kbps. As I address above,
17 "unbundling" and CLEC line card "collocation" would not allow CLECs to provide any
18 other form of service over this architecture in the immediate future. Thus, the Broadband
19 Service, from a technical perspective, already provides virtually the full features and
20 functions of this architecture.

21 **Q. COVAD WITNESS CARTER ALSO CLAIMS THAT THE BROADBAND SERVICE**
22 **IS NOT A VIABLE OFFERING BECAUSE BY THE TIME CLECS COULD BE**
23 **PREPARED TO OFFER IT IN COMMERCIAL VOLUMES THE PRODUCT**
24 **WOULD NO LONGER BE AVAILABLE. MS. CARTER BASES THIS ON THE**
25 **FACT THAT THERE IS AN ONGOING COLLABORATIVE AND TRIAL FOR THE**
26 **BROADBAND SERVICE THAT COMMENCED ONLY SEVERAL FEW MONTHS**
27 **AGO. IS THIS CLAIM ACCURATE?**

1 A. No. SBC first proposed the ordering processes for the Broadband Service to the CLEC
2 community via the change management process in April-May 2000. Furthermore, the
3 collaborative Ms. Carter mentions commenced in June of 2000 and the trial was held in July
4 of 2000. Covad was a participant in this initial trial and has had an opportunity to avail itself
5 of the Broadband Service since that time. Covad has chosen not to utilize the offering but to
6 instead to litigate the issues -- thus, any time constraints that Covad is facing are of its own
7 creation.

8 **Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY ON REHEARING?**

9 A. Yes.